

What is claimed is:

1. A transmission circuit characterized by
comprising:
 - first and second amplification means (1, 2)
for independently amplifying input signals in different
transmission frequency bands, said first amplification
means (1) in an ON state producing an unnecessary
radiant wave in a frequency band substantially
coinciding with a transmission frequency band of said
second amplification means (2) in an OFF state;
first filter means (4) for extracting a
component in the same frequency band as that of an
unnecessary radiant wave leaking out from said second
amplification means during operation of said first
amplification means;
phase adjusting means (5) for adjusting a
phase of an output signal from said first filter means
such that the phase of the output signal from said first
filter means becomes opposite to that of an unnecessary
radiant wave in an output signal from said first
amplification means; and
signal combining means (6) for combining an
output signal from said phase adjusting means with the
output signal from said first amplification means.

2. A circuit according to claim 1, further

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3 demultiplexing means for demultiplexing the
4 output signal from said second amplification means to
5 output a first signal to be supplied to said first
6 filter means and a second signal;
7 second filter means for extracting a desired
8 signal from the second signal output from said
9 demultiplexing means; and
10 output means for selectively outputting one of
11 the output signals from said signal combining means and
12 said second filter means.

3. A circuit according to claim 1, wherein
2 said first filter means comprises a bandpass
3 filter, and
4 second filter means comprises a low-pass
5 filter.

4. An unnecessary radiant wave suppression method
2 comprising the steps of:
3 setting transmission frequency bands for a
4 first amplifier and a second amplifier such that a
5 frequency band of an unnecessary radiant wave produced
6 by the first amplifier in an ON state substantially
7 coincides with a transmission frequency band of the
8 second amplifier in an OFF state;
9 extracting a component in the same frequency
10 band as that of an unnecessary radiant wave leaking out

11 from the second amplifier during operation of the first
12 amplifier;
13 adjusting a phase of the extracted signal
14 component such that the phase becomes opposite to a
15 phase of an unnecessary radiant wave in an output signal
16 from the first amplifier; and
17 combining the phase-adjusted signal with the
18 output signal from the first amplifier.

5. A method according to claim 4, further
2 comprising the step of extracting a desired signal wave
3 from a demultiplexed output signal from the second
4 amplifier during operation of the second amplifier.